Service Manual

DJ-V57

Specifications

Circuit Description

Parts List

PC Board View

Adjustment

Schematic Diagram

Block Diagram

Exploded View

ALINCO, INC.

SPECIFICATIONS DJ-V57

<GRNERAL>

TX Frequency range	136.000～173.995MHz　*144.000～145.995MHz
	400.000～479.995MHz　*430.000～439.995MHz
RX Frequency range	136.000～173.995MHz
	400.000～511.995MHz
Mode	F3E(FM)
Channel steps	5、10、12.5、15、20、25 & 30kHz
Memory channels	200 channels, 2 CALL channel
Antenna connector	50Ω(unbalanced)
Frequency stability	±2.5ppm
Microphone impedance	2k ohm nominal
Power supply	7.2V (Ni-MH battery)
	7 ～ 16V (external DC IN)
Usable temperature range	-10℃～+60℃ (external DC IN)
	+14° F～+140° F (external DC IN)

*Guaranteed range per specifications

<TRANSMITTER>

VHF Output power	approx. 5W
UHF Output power	approx. 4.5W (with battery)
	approx. 5W (external DC IN)
Modulation system	Variable reactance frequency modulation
WFM Max. frequency deviation	±5kHz
NFM Max. frequency deviation	±2.5kHz
Spurious emission	-60dB or less

<RECEIVER>

Receive system	Double conversion superheterodyne
Intermediate frequencies	38.85MHz(1st) / 450kHz (2nd)
VHF Sensitivity (12dB SINAD)	-14dBu (center range)
UHF Sensitivity (12dB SINAD)	-12dBu (center range)
Selectivity	-6dB: 12kHz or more / -60dB: 35kHz or less
Audio output power	500mW (at 8ohm, MAX)

DJ-V57 CIRCUIT DESCRIPTION

[Reception]

1. RX Method: Double Conversion Super Heterodyne
   1st IF: 38.85 MHz
   2nd IF: 450 KHz

2. Front End
   [VHF]
   The signal input from antenna passes through the low pass filter, and then it is amplified at RF amplifier Q117. The amplified signal is led to band pass filter and band switch D132, then input to the mixer Q120.

   [UHF]
   The signal input from antenna passes through the high pass filter and low pass filter, and then it is amplified at RF amplifier Q123. The amplified signal is led to band pass filter and band switch D132, then input to the mixer Q120.

3. Mixer
   The input signal to the mixer Q120 and the 1st local signal are added or subtracted at the mixer Q120, and the crystal filter XF101 selects the signal of 38.85 MHz, then it is amplified at the 1st IF amplifier Q121 after the adjacent signal is eliminated. The 1st local signal from VCO output is supplied to the base of mixer Q120 passing through the buffer amplifier Q116.

4. IF
   The signal amplified at the 1st IF amplifier Q121 is supplied to pin 16 of IC105 for demodulation. Also the signal of 12.8 MHz from X101 multiplied by three at Q115, and then it is led to pin 1 of IC105. Two input signals are mixed in the mixer circuit inside of IC105 and converted into the 2nd IF signal of 450 kHz. The 2nd IF signal output from pin 3 of IC105 is supplied to pin 5 of IC105 after eliminating the adjacent signal at the ceramic filter CF101 in WFM mode, or at the ceramic filter CF102 in NFM mode. The input 2nd IF signal to pin 5 of IC105 is demodulated at the limiter amplifier and quadrature detection circuit inside of IC105, then output from pin 9 of IC105 as an AF signal.

5. Squelch

The AF signal from pin 9 of IC105 is input to pin 8 of IC105. The input signal is output from pin 14 of IC105 passing through the noise filter amplifier and rectifier circuits inside of IC105. The rectified signal is input to the A/D port pin 82 of microcomputer IC109. Judging the signal, the microcomputer controls ON/OFF of the audio output.

6. Audio

The AF signal from pin 9 of IC105 is amplified at Q119, and then it is input to pin 6 of IC106 passing through the active high pass filter Q118. The volume of audio signal is adjusted at the D/A converter IC106. The audio signal is input to pin 2 of audio power amplifier IC104 and output from pin 6 to drive a speaker.

7. VCO

[VHF]

VCO in VHF band consists of the Colpitts oscillator. D106, D112, L112 and L115 determine the oscillating frequency, and the signal is oscillated at the transistor Q103. L115 is passed at shift transistor Q107 when transmitting. The oscillated signal is supplied to pin 16 of PLL-IC102 passing through the buffer amplifier Q114.

[UHF]

VCO in VHF band consists of the Colpitts oscillator. D119, D124, L127 and L129 determine the oscillating frequency, and the signal is oscillated at the transistor Q108. L129 is passed at shift transistor Q111 when transmitting. The oscillated signal is supplied to pin 16 of PLL-IC102 passing through the buffer amplifier Q114.

8. PLL

PLL-IC102 is used to control the oscillating frequency of VCO. IC102 is controlled by the serial control signal sent from the microcomputer IC109. The 12.8MHz for reference frequency of IC102 oscillates in the TCXO X101.
IC102 compares the frequency gained by dividing the signal input to pin 16 of IC102 by the control signal from IC109 with the frequency gained by dividing the reference frequency of 12.8 MHz. When the phase difference is found as a

result of phase comparison, the pulse signal is output from the charge pump output of pin 21 of IC102, then the signal is converted into the DC voltage at the low pass filter and added to the cathode side of VCO vari-cap to make the phases equal. In result the stabilized oscillation can be done at the desired frequency.

[Transmission]

1. Microphone Amplifier

The microphone amplifier IC110 has four operational amplifiers. The voice is converted into the electric signal through the microphone, and then supplied to IC110. The input signal is amplified and pre-emphasized to be output.
The signal output from microphone amplifier is adjusted the maximum frequency deviation at D/A converter IC106. The adjusted signal is added to the cathode of D111 of VHF or D123 of UHF VCO for deviation to change the capacity of the oscillation circuit resulting the FM deviation.

2. Power Amplifier

The oscillated signal at VCO is amplified at pre-driver amplifier IC101, driver amplifier Q105 and power amplifier Q101. The power-amplified signal is supplied to the antenna through the duplexer after the harmonics are rejected enough at the low pass filter.

Parts List DJ-V57
MAIN Unit

Ref.No.	Parts No.	Parts Name
C101	CU3559	GRM155B30J105KE18D
C102	CU3535	GRM155B11H102KA01D
C103	CU3523	GRM1552C1H101JZ01D
C104	CU3535	GRM155B11H102KA01D
C105	CU3554	GRM155B11A104KA01D
C106	CU3535	GRM155B11H102KA01D
C107	CU3535	GRM155B11H102KA01D
C108	CU0124	GRM21BB30J226ME38L
C109	CU3504	GRM1553C1H3R0CZ01D
C110	CU3513	GRM1552C1H150JZ01D
C111	CU3535	GRM155B11H102KA01D
C112	CU3515	GRM1552C1H220JZ01D
C113	CU3511	GRM1552C1H100JZ01D
C114	CU3514	GRM1552C1H180JZ01D
C115	CU3559	GRM155B30J105KE18D
C116	NC	
C117	CU3517	GRM1552C1H330JZ01D
C118	CU3516	GRM1552C1H270JZ01D
C119	NC	
C120	CU3513	GRM1552C1H150JZ01D
C121	CU3516	GRM1552C1H270JZ01D
C122	CU3515	GRM1552C1H220JZ01D
C123	CU3502	GRM1554C1H1R0CZ01D
C124	CU3502	GRM1554C1H1R0CZ01D
C125	CU3518	GRM1552C1H390JZ01D
C126	CU3518	GRM1552C1H390JZ01D
C127	CU3017	C1608CH1H330JT-NS
C128	NC	
C129	NC	
C130	CU3535	GRM155B11H102KA01D
C131	CU3502	GRM1554C1H1R0CZ01D
C132	CU3501	GRM1554C1HR50CZ01D
C133	CU3535	GRM155B11H102KA01D
C134	CU3514	GRM1552C1H180JZ01D
C135	CU3513	GRM1552C1H150JZ01D
C136	CU3511	GRM1552C1H100JZ01D
C137	CU3547	GRM155B11C103KA01D
C138	CU3535	GRM155B11H102KA01D
C139	CU3527	GRM1552C1E221JA01D
C140	CU3535	GRM155B11H102KA01D
C141	CU3502	GRM1554C1H1R0CZ01D
C142	CU3502	GRM1554C1H1R0CZ01D
C143	CU3502	GRM1554C1H1R0CZ01D
C144	CU3547	GRM155B11C103KA01D
C145	CU3514	GRM1552C1H180JZ01D
C146	CU3535	GRM155B11H102KA01D
C147	CU3148	GRM188B31E105KA75D
C148	CU3547	GRM155B11C103KA01D
C149	CU3535	GRM155B11H102KA01D
C150	CU3527	GRM1552C1E221JA01D
C151	CU3515	GRM1552C1H220JZ01D
C152	CU3527	GRM1552C1E221JA01D
C153	CU3535	GRM155B11H102KA01D
C154	CU3535	GRM155B11H102KA01D
C155	CU3535	GRM155B11H102KA01D
C156	CU0119	GRM21BB30J106KE18L
C157	CU3547	GRM155B11C103KA01D
C158	CU3535	GRM155B11H102KA01D
C159	CU3535	GRM155B11H102KA01D

C160	CU3547	GRM155B11C103KA01D
C161	CU3535	GRM155B11H102KA01D
C162	CU3535	GRM155B11H102KA01D
C163	CS0396	TMCP1D104MTRF
C164	CU3527	GRM1552C1E221JA01D
C165	CU3535	GRM155B11H102KA01D
C166	CU3531	GRM155B11H471KA01D
C167	CU3508	GRM1552C1H7R0DZ01D
C168	CU3523	GRM1552C1H101JZ01D
C169	CU3554	GRM155B11A104KA01D
C170	CU3554	GRM155B11A104KA01D
C171	CU3535	GRM155B11H102KA01D
C172	CU3009	C1608CH1H080DT-NS
C173	CU3007	C1608CH1H060DT/S
C174	CU3013	C1608CH1H150JT/S
C175	NC	
C176	CU3531	GRM155B11H471KA01D
C177	CU3507	GRM1552C1H6R0DZ01D
C178	CU3509	GRM1552C1H8R0DZ01D
C179	CU3535	GRM155B11H102KA01D
C180	CU3143	GRM188B30J475KE18D
C181	CU3554	GRM155B11A104KA01D
C182	CU3531	GRM155B11H471KA01D
C183	CU3518	GRM1552C1H390JZ01D
C184	CU3507	GRM1552C1H6R0DZ01D
C185	CU3502	GRM1554C1H1R0CZ01D
C186	CU3511	GRM1552C1H100JZ01D
C187	CU3512	GRM1552C1H120JZ01D
C188	CU3501	GRM1554C1HR50CZ01D
C189	CU3531	GRM155B11H471KA01D
C190	CU3507	GRM1552C1H6R0DZ01D
C191	CU3506	GRM1552C1H5R0CZ01D
C192	CU3518	GRM1552C1H390JZ01D
C193	CU3535	GRM155B11H102KA01D
C194	CU3554	GRM155B11A104KA01D
C195	CU3501	GRM1554C1HR50CZ01D
C196	CU3535	GRM155B11H102KA01D
C197	CU3507	GRM1552C1H6R0DZ01D
C198	CU3501	GRM1554C1HR50CZ01D
C199	CU3501	GRM1554C1HR50CZ01D
C200	CU3535	GRM155B11H102KA01D
C201	CS0396	TMCP1D104MTRF
C202	CU3523	GRM1552C1H101JZ01D
C203	CU3523	GRM1552C1H101JZ01D
C204	CU3502	GRM1554C1H1R0CZ01D
C205	CU3535	GRM155B11H102KA01D
C206	CU3511	GRM1552C1H100JZ01D
C207	CU3556	GRM155B10J224KE01E
C208	CU3531	GRM155B11H471KA01D
C209	CS0397	TMCP1C105MTRF
C210	CU3506	GRM1552C1H5R0CZ01D
C211	CU3535	GRM155B11H102KA01D
C212	CU3535	GRM155B11H102KA01D
C213	CU3531	GRM155B11H471KA01D
C214	CS0396	TMCP1D104MTRF
C215	CU3554	GRM155B11A104KA01D
C216	CU3535	GRM155B11H102KA01D
C217	CU3507	GRM1552C1H6R0DZ01D
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C219	CU3535	GRM155B11H102KA01D
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C222	CU3547	GRM155B11C103KA01D
C223	CU3508	GRM1552C1H7R0DZ01D
C224	CU3521	GRM1552C1H680JZ01D
C225	CU3535	GRM155B11H102KA01D
C226	CU3575	GRM1554C1H1R5BZ01D
C227	CU3503	GRM1554C1H2R0CZ01D
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C231	CU3521	GRM1552C1H680JZ01D
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C367	CU3554	GRM155B11A104KA01D
C368	CU3535	GRM155B11H102KA01D
C369	CS0439	TMCMA0J476MTRF
C370	NC	
C371	CU3514	GRM1552C1H180JZ01D
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C373	CU3541	GRM155B11H332KA01D
C374	CU3554	GRM155B11A104KA01D
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C376	CU3148	GRM188B31E105KA75D
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C380	CU3553	GRM155B11A473KA01D
C381	CU3543	GRM155B11E472KA01D
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C383	CU3148	GRM188B31E105KA75D
C384	CU3535	GRM155B11H102KA01D
C385	CU3554	GRM155B11A104KA01D
C386	CU3533	GRM155B11H681KA01D
C387	CU3523	GRM1552C1H101JZ01D
C388	CU3535	GRM155B11H102KA01D
C389	CU3559	GRM155B30J105KE18D
C390	CU3148	GRM188B31E105KA75D
C391	CU3535	GRM155B11H102KA01D
C392	CU3559	GRM155B30J105KE18D
C393	CU3554	GRM155B11A104KA01D
C394	CU3541	GRM155B11H332KA01D
C395	CU3535	GRM155B11H102KA01D
C396	CU0119	GRM21BB30J106KE18L
C397	CU3535	GRM155B11H102KA01D
C398	CU3535	GRM155B11H102KA01D
C399	CU3535	GRM155B11H102KA01D
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C401	CU3559	GRM155B30J105KE18D
C402	NC	
C403	CU3535	GRM155B11H102KA01D
C404	CU3547	GRM155B11C103KA01D
C405	CU3535	GRM155B11H102KA01D
C406	CU3527	GRM1552C1E221JA01D
C407	CU3535	GRM155B11H102KA01D
C408	CE0436	16CE47BSS
C409	CU3535	GRM155B11H102KA01D
C410	CU3547	GRM155B11C103KA01D
C411	CU3547	GRM155B11C103KA01D

C412	CU3554	GRM155B11A104KA01D
C414	CU3523	GRM1552C1H101JZ01D
C415	CU3535	GRM155B11H102KA01D
C416	CU3554	GRM155B11A104KA01D
C417	CU0119	GRM21BB30J106KE18L
C418	CU3554	GRM155B11A104KA01D
C419	CU3535	GRM155B11H102KA01D
C421	NC	
C422	CU3507	GRM1552C1H6R0DZ01D
C423	CU3508	GRM1552C1H7R0DZ01D
C424	CU3507	GRM1552C1H6R0DZ01D
C425	CU3535	GRM155B11H102KA01D
C426	NC	
C427	NC	
C428	CU3535	GRM155B11H102KA01D
C429	CU3143	GRM188B30J475KE18D
CF101	XC0075	CFUKG450KE4A-R0
CF102	XC0074	CFUKG450KG1A-R0
D101	XD0419	1SS400 TE61
D102	XD0326	1SV307(TPH3,F)
D103	XD0422	HSC277TRF-E
D104	XD0339	1SV308(TPH3,F)
D106	XD0421	1SV323(TPH3,F)
D107	XD0422	HSC277TRF-E
D108	XD0433	RB715WTL
D109	XD0422	HSC277TRF-E
D110	XD0422	HSC277TRF-E
D111	XD0422	HSC277TRF-E
D112	XD0421	1SV323(TPH3,F)
D113	XD0451	015AZ3.0-X(TPL3,F)
D114	XD0326	1SV307(TPH3,F)
D116	XD0503	JDP2S04E(TPH3,F)
D117	XD0339	1SV308(TPH3,F)
D118	XD0503	JDP2S04E(TPH3,F)
D119	XD0454	1SV305(TPH3,F)
D120	XD0497	1SS364(TE85L,F)
D121	XD0433	RB715WTL
D122	XD0422	HSC277TRF-E
D123	XD0422	HSC277TRF-E
D124	XD0454	1SV305(TPH3,F)
D125	XD0339	1SV308(TPH3,F)
D126	XD0339	1SV308(TPH3,F)
D127	XD0498	1SV329(TPH3,F)
D128	XD0339	1SV308(TPH3,F)
D129	XD0421	1SV323(TPH3,F)
D130	XD0421	1SV323(TPH3,F)
D131	XD0421	1SV323(TPH3,F)
D132	XD0497	1SS364(TE85L,F)
D133	XD0486	1SV331(TPH3,F)
D134	XD0486	1SV331(TPH3,F)
D135	XD0486	1SV331(TPH3,F)
D136	XD0486	1SV331(TPH3,F)
D137	XD0497	1SS364(TE85L,F)
D138	XD0497	1SS364(TE85L,F)
D139	XL0097	SML-521MUWT86
D140	XL0128	SML-D12M8WT86
D141	XL0128	SML-D12M8WT86
D142	XD0418	RB521S-30TE61
D143	XD0424	S3JB-T
D144	XD0338	1SS362(TE85L,F)
D145	XL0128	SML-D12M8WT86
D146	XL0128	SML-D12M8WT86

D147	XD0419	1SS400 TE61
D148	XD0338	1SS362(TE85L,F)
D149	XL0128	SML-D12M8WT86
D150	XL0128	SML-D12M8WT86
D151	XD0418	RB521S-30TE61
D152	XD0499	CMS01(TE12L,Q)
D153	XD0418	RB521S-30TE61
D154	XD0499	CMS01(TE12L,Q)
D155	XD0338	1SS362(TE85L,F)
D156	XD0503	JDP2S04E(TPH3,F)
FB101	QB0057	MPZ1608S101AT/A
FB102	QB0057	MPZ1608S101AT/A
FB103	QB0057	MPZ1608S101AT/A
FB104	QB0057	MPZ1608S101AT/A
FB106	QB0065	FBMH1608HM151-T
IC101	XA0968	UPC2710TB-E3
IC102	XA1410	AK1542-L
IC103	XA1103	LM2904PWR-JF (G4)
IC104	XA0210	NJM2070M-TE1-#ZMZB
IC105	XA1391	NJM2591V-TE1
IC106	XA1411	R2A20178NP#W0
IC107	XA0617	TC75S56FU(TE85L,F)
IC108	XA1119	XC6202P502MR
IC109	XA1496	R5F2L3ACANFP#U1
IC110	XA1106	LM2902PWR (G4)
IC111	XA1103	LM2904PWR-JF (G4)
IC112	XA1106	LM2902PWR (G4)
IC113	XA1120	S-80845CLNB-B66T2G
IC114	XA1413	R1EX24064ATAS0A#S0
JK101	UJ0060	HSJ1594-010150
JK102	UJ0061	LD-0208-1.3
L101	QS402006	0.40-2.0-6TLﾃｰﾋﾟﾝｸﾞ
L102	QS401405	0.40-1.4-5TLﾃｰﾋﾟﾝｸﾞ
L103	QS402006	0.40-2.0-6TLﾃｰﾋﾟﾝｸﾞ
L104	QS401405	0.40-1.4-5TLﾃｰﾋﾟﾝｸﾞ
L105	QS501403	0.50-1.4-3TL ﾃｰﾋﾟﾝｸﾞ
L106	QC0812	MLG1005SR10J-T/A
L107	QC0762	C1608CB-56NJ
L108	QC0762	C1608CB-56NJ
L109	QC0779	C1608H-10NJ
L110	QS402006	0.40-2.0-6TLﾃｰﾋﾟﾝｸﾞ
L111	QC0902	C2012C1R0J
L112	QC0956	C1608CB-62NG
L113	QS402006	0.40-2.0-6TLﾃｰﾋﾟﾝｸﾞ
L114	QC0812	MLG1005SR10J-T/A
L115	QC0786	C1608H-39NJ
L116	QC0736	LK10052R2K-T
L117	QC0816	MLG1005SR22J-T/A
L119	QS401405	0.40-1.4-5TLﾃｰﾋﾟﾝｸﾞ
L120	QS401405	0.40-1.4-5TLﾃｰﾋﾟﾝｸﾞ
L121	QS401205	E2-0.40-1.2-5TR
L122	QS501402	0.50-1.4-2TLﾃｰﾋﾟﾝｸﾞ
L123	QC0808	MLG1005S47NJ-T/A
L124	QS401405	0.40-1.4-5TLﾃｰﾋﾟﾝｸﾞ
L125	QC0773	C1608CB-R47J
L126	QS401405	0.40-1.4-5TLﾃｰﾋﾟﾝｸﾞ
L127	QC0778	C1608H-8N2J
L129	QC0774	C1608H-2N7K
L130	QC0812	MLG1005SR10J-T/A
L132	QC0816	MLG1005SR22J-T/A
L133	QC0816	MLG1005SR22J-T/A
L134	QC0875	C2012H68NH

L135	QC0816	MLG1005SR22J-T/A
L136	QC0875	C2012H68NH
L137	QC0875	C2012H68NH
L138	QC0874	C2012H56NH
L139	QC0816	MLG1005SR22J-T/A
L140	QC0773	C1608CB-R47J
L141	QC0955	C1608H-15NG
L142	QC0955	C1608H-15NG
L143	QC0955	C1608H-15NG
L144	QC0782	C1608H-18NJ
L145	QC0780	C1608H-12NJ
L146	QC0762	C1608CB-56NJ
L147	QC0965	LB2012T220K
L148	QC0779	C1608H-10NJ
LCD101	EL0059	L5-0353TRM
MIC101	EY0017	OB-27P44 (ROHS)ﾀｲｵｳ
Q101	XT0210	2SC6026MFV-GR(TPL3)
Q102	XE0090	SSM3J15FV(TPL3,Z)
Q103	XT0180	2SC5066FT-Y(T5L,F)
Q104	XU0237	RN47A4JE(TE85L,F)
Q105	XE0094	RD01MUS2-T113
Q106	XE0100	RD07MUS2B-T112
Q107	XU0210	RN1107MFV(TPL3)
Q108	XT0180	2SC5066FT-Y(T5L,F)
Q109	XE0090	SSM3J15FV(TPL3,Z)
Q110	XU0210	RN1107MFV(TPL3)
Q111	XU0210	RN1107MFV(TPL3)
Q112	XU0237	RN47A4JE(TE85L,F)
Q113	XT0180	2SC5066FT-Y(T5L,F)
Q114	XT0180	2SC5066FT-Y(T5L,F)
Q115	XT0213	2SC5659 T2L P
Q116	XT0180	2SC5066FT-Y(T5L,F)
Q117	XE0053	3SK293(TE85L,F)
Q118	XT0210	2SC6026MFV-GR(TPL3)
Q119	XT0210	2SC6026MFV-GR(TPL3)
Q120	XT0180	2SC5066FT-Y(T5L,F)
Q121	XT0213	2SC5659 T2L P
Q122	XE0090	SSM3J15FV(TPL3,Z)
Q123	XE0053	3SK293(TE85L,F)
Q124	XE0090	SSM3J15FV(TPL3,Z)
Q125	XT0241	TPCP8602(TE85L,F)
Q126	XU0237	RN47A4JE(TE85L,F)
Q127	XT0214	HN2C01FE-GR(T5L,F)
Q128	XU0220	RN2111MFV(TPL3)
Q129	XT0212	2SA1955FV-A (TPL3)
Q130	XE0090	SSM3J15FV(TPL3,Z)
Q131	XT0212	2SA1955FV-A (TPL3)
Q132	XU0237	RN47A4JE(TE85L,F)
Q133	XT0241	TPCP8602(TE85L,F)
Q134	XU0210	RN1107MFV(TPL3)
Q135	XT0212	2SA1955FV-A (TPL3)
Q136	XU0211	RN2107MFV(TPL3)
Q137	XT0214	HN2C01FE-GR(T5L,F)
Q138	XU0213	RN1111MFV(TPL3)
Q139	XU0210	RN1107MFV(TPL3)
Q140	XU0211	RN2107MFV(TPL3)
Q141	XU0211	RN2107MFV(TPL3)
Q142	XU0212	RN2115MFV (TPL3)
Q143	XU0211	RN2107MFV(TPL3)
Q144	XU0210	RN1107MFV(TPL3)
Q145	XU0210	RN1107MFV(TPL3)
Q146	XU0220	RN2111MFV(TPL3)

Q147	XU0210	RN1107MFV(TPL3)
Q148	XT0241	TPCP8602(TE85L,F)
Q149	XT0210	2SC6026MFV-GR(TPL3)
Q150	XU0213	RN1111MFV(TPL3)
Q151	XU0210	RN1107MFV(TPL3)
Q152	XU0213	RN1111MFV(TPL3)
Q153	XU0210	RN1107MFV(TPL3)
Q154	XU0210	RN1107MFV(TPL3)
R101	RK3542	RK73B1ETTP222J
R102	RK3534	RK73B1ETTP471J
R103	RK3526	RK73B1ETTP101J
R104	RK3522	RK73B1ETTP470J
R105	RK3550	RK73B1ETTP103J
R106	NC	
R107	RK3530	RK73B1ETTP221J
R108	RK3554	RK73B1ETTP223J
R109	RK3030	RK73B1JTTD221J
R110	RK3552	RK73B1ETTP153J
R111	RK3574	RK73B1ETTP105J
R112	RK3562	RK73B1ETTP104J
R113	RK3526	RK73B1ETTP101J
R114	RK3550	RK73B1ETTP103J
R115	RK3018	RK73B1JTTD220J
R116	RK3530	RK73B1ETTP221J
R117	RK3530	RK73B1ETTP221J
R118	RK3550	RK73B1ETTP103J
R119	RK3550	RK73B1ETTP103J
R120	RK3560	RK73B1ETTP683J
R121	RK3556	RK73B1ETTP333J
R122	RK3526	RK73B1ETTP101J
R123	RK3537	RK73B1ETTP821J
R124	RK3562	RK73B1ETTP104J
R125	RK3562	RK73B1ETTP104J
R126	RK3532	RK73B1ETTP331J
R127	RK3562	RK73B1ETTP104J
R128	RK3538	RK73B1ETTP102J
R130	RK3550	RK73B1ETTP103J
R131	RK3566	RK73B1ETTP224J
R132	RK3558	RK73B1ETTP473J
R133	RK3526	RK73B1ETTP101J
R134	RK3534	RK73B1ETTP471J
R135	RK3546	RK73B1ETTP472J
R136	RK3526	RK73B1ETTP101J
R137	RK3554	RK73B1ETTP223J
R138	NC	
R140	RK3550	RK73B1ETTP103J
R141	RK3558	RK73B1ETTP473J
R142	RK3552	RK73B1ETTP153J
R143	RK3550	RK73B1ETTP103J
R144	RK3563	RK73B1ETTP124J
R145	RK3544	RK73B1ETTP332J
R146	RK3550	RK73B1ETTP103J
R147	RK3550	RK73B1ETTP103J
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R150	RK3532	RK73B1ETTP331J
R151	RK3550	RK73B1ETTP103J
R152	RK3534	RK73B1ETTP471J
R153	RK3530	RK73B1ETTP221J
R154	RK3562	RK73B1ETTP104J
R155	RK3562	RK73B1ETTP104J
R156	RK3526	RK73B1ETTP101J

R157	RK3542	RK73B1ETTP222J
R158	RK3550	RK73B1ETTP103J
R159	RK3552	RK73B1ETTP153J
R160	RK3534	RK73B1ETTP471J
R161	RK3546	RK73B1ETTP472J
R162	RK3550	RK73B1ETTP103J
R163	RK3562	RK73B1ETTP104J
R164	RK3562	RK73B1ETTP104J
R165	RK3566	RK73B1ETTP224J
R166	RK3542	RK73B1ETTP222J
R167	RK3538	RK73B1ETTP102J
R168	RK3562	RK73B1ETTP104J
R169	RK3530	RK73B1ETTP221J
R170	RK3566	RK73B1ETTP224J
R171	RK3530	RK73B1ETTP221J
R172	RK3526	RK73B1ETTP101J
R173	RK3562	RK73B1ETTP104J
R174	RK3522	RK73B1ETTP470J
R175	RK3562	RK73B1ETTP104J
R176	RK3562	RK73B1ETTP104J
R177	RK3538	RK73B1ETTP102J
R178	RK3526	RK73B1ETTP101J
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R183	RK3526	RK73B1ETTP101J
R184	RK3526	RK73B1ETTP101J
R185	RK3570	RK73B1ETTP474J
R186	RK3546	RK73B1ETTP472J
R187	RK3501	RK73Z1ETTP
R188	RK3543	RK73B1ETTP272J
R189	RK3562	RK73B1ETTP104J
R190	RK3537	RK73B1ETTP821J
R191	RK3566	RK73B1ETTP224J
R192	RK3550	RK73B1ETTP103J
R193	RK3546	RK73B1ETTP472J
R194	RK3546	RK73B1ETTP472J
R195	RK3534	RK73B1ETTP471J
R196	RK3538	RK73B1ETTP102J
R197	RK3562	RK73B1ETTP104J
R198	RK3538	RK73B1ETTP102J
R199	RK3546	RK73B1ETTP472J
R200	RK3574	RK73B1ETTP105J
R201	RK3550	RK73B1ETTP103J
R202	RK3570	RK73B1ETTP474J
R203	RK3550	RK73B1ETTP103J
R204	RK3514	RK73B1ETTP100J
R205	RK3550	RK73B1ETTP103J
R206	RK3526	RK73B1ETTP101J
R207	RK3538	RK73B1ETTP102J
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R209	RK3574	RK73B1ETTP105J
R210	RK3562	RK73B1ETTP104J
R211	RK3564	RK73B1ETTP154J
R212	RK3522	RK73B1ETTP470J
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R214	RK3562	RK73B1ETTP104J
R215	RK3562	RK73B1ETTP104J
R216	RK3538	RK73B1ETTP102J
R217	RK3558	RK73B1ETTP473J
R218	RK3562	RK73B1ETTP104J

R219	RK3562	RK73B1ETTP104J
R220	RK3574	RK73B1ETTP105J
R221	RK3554	RK73B1ETTP223J
R222	RK3553	RK73B1ETTP183J
R223	RK3526	RK73B1ETTP101J
R224	RK3526	RK73B1ETTP101J
R225	RK3564	RK73B1ETTP154J
R226	RK3574	RK73B1ETTP105J
R227	RK3554	RK73B1ETTP223J
R228	RK3550	RK73B1ETTP103J
R229	RK3562	RK73B1ETTP104J
R230	RK3550	RK73B1ETTP103J
R231	RK3558	RK73B1ETTP473J
R232	RK3542	RK73B1ETTP222J
R233	RK3536	RK73B1ETTP681J
R234	RK3532	RK73B1ETTP331J
R235	RK3546	RK73B1ETTP472J
R236	RK3562	RK73B1ETTP104J
R237	NC	
R238	NC	
R239	RK3542	RK73B1ETTP222J
R240	RK3552	RK73B1ETTP153J
R241	RK3546	RK73B1ETTP472J
R242	RK3546	RK73B1ETTP472J
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R251	RK3562	RK73B1ETTP104J
R252	RK3562	RK73B1ETTP104J
R253	RK3558	RK73B1ETTP473J
R254	NC	
R255	RK3552	RK73B1ETTP153J
R256	RK3538	RK73B1ETTP102J
R257	RK3562	RK73B1ETTP104J
R258	RK3526	RK73B1ETTP101J
R259	RK3536	RK73B1ETTP681J
R260	RK3562	RK73B1ETTP104J
R261	RK3550	RK73B1ETTP103J
R264	RK3566	RK73B1ETTP224J
R265	RK3563	RK73B1ETTP124J
R266	RK3548	RK73B1ETTP682J
R267	RK3552	RK73B1ETTP153J
R268	RK3550	RK73B1ETTP103J
R269	RK3501	RK73Z1ETTP
R270	RK3538	RK73B1ETTP102J
R271	RK3550	RK73B1ETTP103J
R272	RK3548	RK73B1ETTP682J
R273	RK3542	RK73B1ETTP222J
R274	RK3538	RK73B1ETTP102J
R275	RK3560	RK73B1ETTP683J
R276	NC	
R277	RK1018	ERJ8GEYJ101V
R278	RK3552	RK73B1ETTP153J
R279	RK3562	RK73B1ETTP104J
R280	RK3554	RK73B1ETTP223J
R281	RK3559	RK73B1ETTP563J
R282	RK3558	RK73B1ETTP473J

R283	RK3566	RK73B1ETTP224J
R284	RK3562	RK73B1ETTP104J
R285	RK3562	RK73B1ETTP104J
R286	RK3550	RK73B1ETTP103J
R287	RK3550	RK73B1ETTP103J
R288	RK3550	RK73B1ETTP103J
R289	RK3558	RK73B1ETTP473J
R290	RK3558	RK73B1ETTP473J
R291	RK3558	RK73B1ETTP473J
R292	RK3550	RK73B1ETTP103J
R293	RK3562	RK73B1ETTP104J
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R295	RK3550	RK73B1ETTP103J
R296	RK3554	RK73B1ETTP223J
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R299	RK3558	RK73B1ETTP473J
R300	RK3574	RK73B1ETTP105J
R301	RK3550	RK73B1ETTP103J
R302	RK3556	RK73B1ETTP333J
R303	RK3566	RK73B1ETTP224J
R304	RK3570	RK73B1ETTP474J
R306	RK3550	RK73B1ETTP103J
R307	RK3546	RK73B1ETTP472J
R308	RK3566	RK73B1ETTP224J
R309	RK3568	RK73B1ETTP334J
R310	RK3574	RK73B1ETTP105J
R311	RK3550	RK73B1ETTP103J
R312	RK3550	RK73B1ETTP103J
R313	RK3556	RK73B1ETTP333J
R314	RK3556	RK73B1ETTP333J
R315	RK3536	RK73B1ETTP681J
R316	RK3562	RK73B1ETTP104J
R317	RK3550	RK73B1ETTP103J
R318	RK3017	RK73B1JTTD180J
R319	RK3566	RK73B1ETTP224J
R320	RK3558	RK73B1ETTP473J
R321	RK3562	RK73B1ETTP104J
R322	RK3546	RK73B1ETTP472J
R323	RK3550	RK73B1ETTP103J
R324	RK3558	RK73B1ETTP473J
R325	RK3558	RK73B1ETTP473J
R326	RK3552	RK73B1ETTP153J
R327	RK3562	RK73B1ETTP104J
R328	RK3016	RK73B1JTTD150J
R329	RK3537	RK73B1ETTP821J
R330	RK3562	RK73B1ETTP104J
R331	RK3550	RK73B1ETTP103J
R332	RK3546	RK73B1ETTP472J
R333	RK3562	RK73B1ETTP104J
R334	RK3550	RK73B1ETTP103J
R335	RK3570	RK73B1ETTP474J
R336	RK3552	RK73B1ETTP153J
R337	RK3567	RK73B1ETTP274J
R338	RK3537	RK73B1ETTP821J
R339	RK3550	RK73B1ETTP103J
R340	RK3574	RK73B1ETTP105J
R341	NC	
R342	RK3566	RK73B1ETTP224J
R343	NC	
R344	RK3538	RK73B1ETTP102J
R345	RK3538	RK73B1ETTP102J

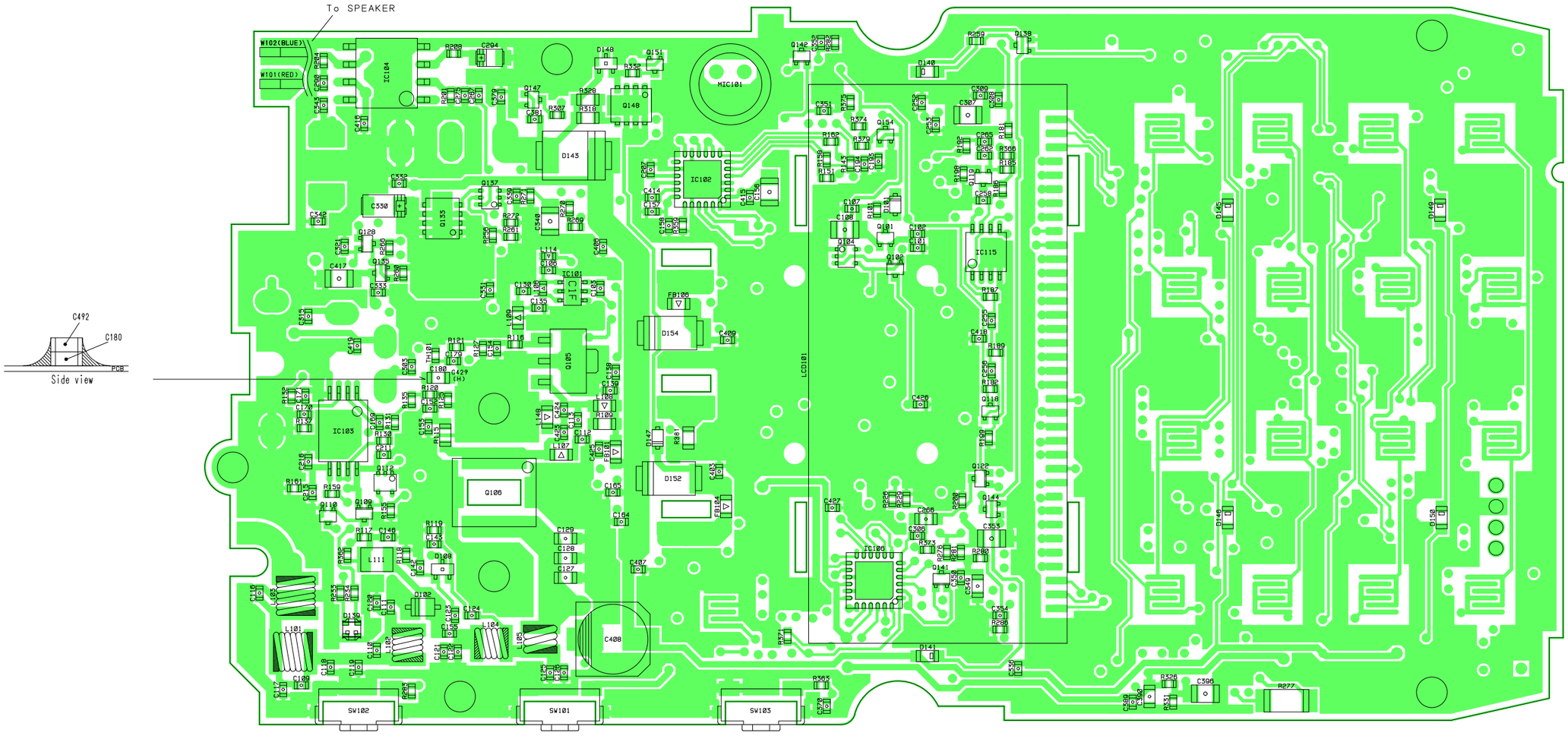
R347	RK3554	RK73B1ETTP223J
R348	RK3550	RK73B1ETTP103J
R349	RK3550	RK73B1ETTP103J
R350	RK3550	RK73B1ETTP103J
R351	RK3546	RK73B1ETTP472J
R353	NC	
R354	RK3546	RK73B1ETTP472J
R355	RK3546	RK73B1ETTP472J
R356	RK3546	RK73B1ETTP472J
R357	RK3546	RK73B1ETTP472J
R358	NC	
R359	RK3555	RK73B1ETTP273J
R361	RK3532	RK73B1ETTP331J
R362	RK3530	RK73B1ETTP221J
R363	RK3501	RK73Z1ETTP
R364	RK3550	RK73B1ETTP103J
R365	RK3550	RK73B1ETTP103J
R366	NC	
R368	RK3544	RK73B1ETTP332J
R369	RK3562	RK73B1ETTP104J
R370	NC	
R371	RK3501	RK73Z1ETTP
R373	RK3574	RK73B1ETTP105J
R374	NC	
R375	NC	
R377	RK3526	RK73B1ETTP101J
R378	RK3554	RK73B1ETTP223J
R379	RK3554	RK73B1ETTP223J
R380	RK3562	RK73B1ETTP104J
R381	RK0107	ERJ6GEY0R00V
SW101	UU0041	EVQP4203M
SW102	UU0041	EVQP4203M
SW103	UU0041	EVQP4203M
TH101	XS0052	NTCG104LH104JT/A
X101	XQ0194	NT3225SA 12.800MHZ
X102	XK0014	CDBKB450KCAY70-R0
X103	XQ0233	DSX530GA 8.192MHZ
XF0085	XF0085	DSF753SBF 38.85MHZ
	FM0265A	HEAT SINK
	DG0046	LCD LIGHT DJ170
	FG0418	LCD RUB CONE
	ST0089	LCD HOLDER
	TL0033	REFLECTIVE SHEET
	TS0193	VCO CASE DJS57
	MACLH2GG	#30AH1-025-H1
	UP0660	INTEGRATED DJS57

Mechanical Unit

Ref.No.	Parts No.	Parts Name
	AA0083	M6 WATERPROOF
	AF0003Z	XQN2+C3FN
	AF0018Z	XQN2+C4FJK
	AF0030	XQN2+A6FN(58364-0001
	AN0012Z	ﾀﾞｲﾔﾙﾅｯﾄ ｸﾛﾆｯｹﾙ
	AN0033	BASE NUT
	AN0034	M6 NUT BR/B.N
	AP0039	ﾅﾍﾞP2+20ﾃﾂ 3BBC
	AX0004Z	PT 3P 2X8 3BBC
	DP0210	LCD PANEL
	ES0034	40-8BB-17
	FG0392	WATERPROOF CAP
	FG0416	BASE RUBBER
	FG0417	DC CAP
	FG0419	WATERPROOF RUBBER
	FG0420A	POWER KEY V17
	FG0421	PTT RUBBER
	FG0424	O RING DJ170
	FG0426	MIC RUBBER DJ170
	FG0427	ON AIR RUBBER
	FG0422	KEY RUBBER
	FG0472	CUSHION EDH34
	FG0503	JACK RUBBER DJS57
	FK0002	MIC SPACER DJP82
	FM0263	GROUND DJ170
	FM0264Z	JACK BASE
	FP0254	REAR COVER DJ170
	FP0255	LOCK LEVER DJV17
	FP0264	BLIND SEAL DJ170
	FP0265	S-NTF1026J 5.8X3.0PH
	FP0266	INSULATION SHEET
	KZ0240	FRONT CASE ASSY
	MACL07AA	#30A02-070-02
	MRCL07AA	#30R02-070-02
	NK0081	KNOB
	SD0111A	BATTERY TERMINAL
	SP0013	LECTRA #7800
	SS0103A	CHASSIS
	UE0502A	SMA CONNECTOR
	UP0535	BATT PANEL BOARD
	UR0027	RH70N97E20 16.2F
	YX0039	LCD TAPE DJS45

Packing Unit

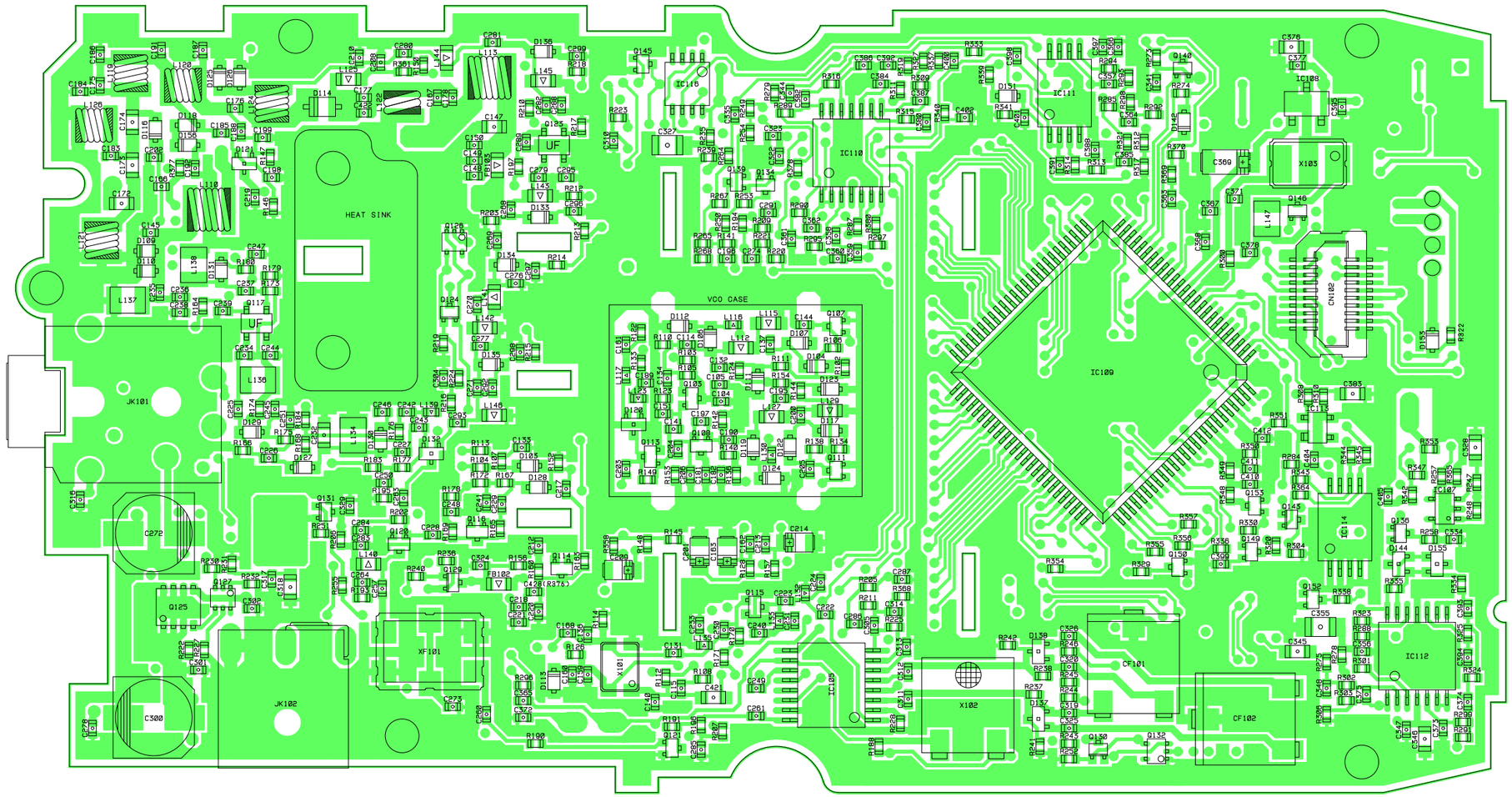
	BB0009Y	HAND STRAP
	BH0017	BELT CLIP
	EA0114A	ANTENNA
	EG0063	EBP66
	EDC160	NI-MH CHARGER SET



DJV57 PC Board View

MAIN - Side A

ALINCO, INC.



DJV57 PC Board View

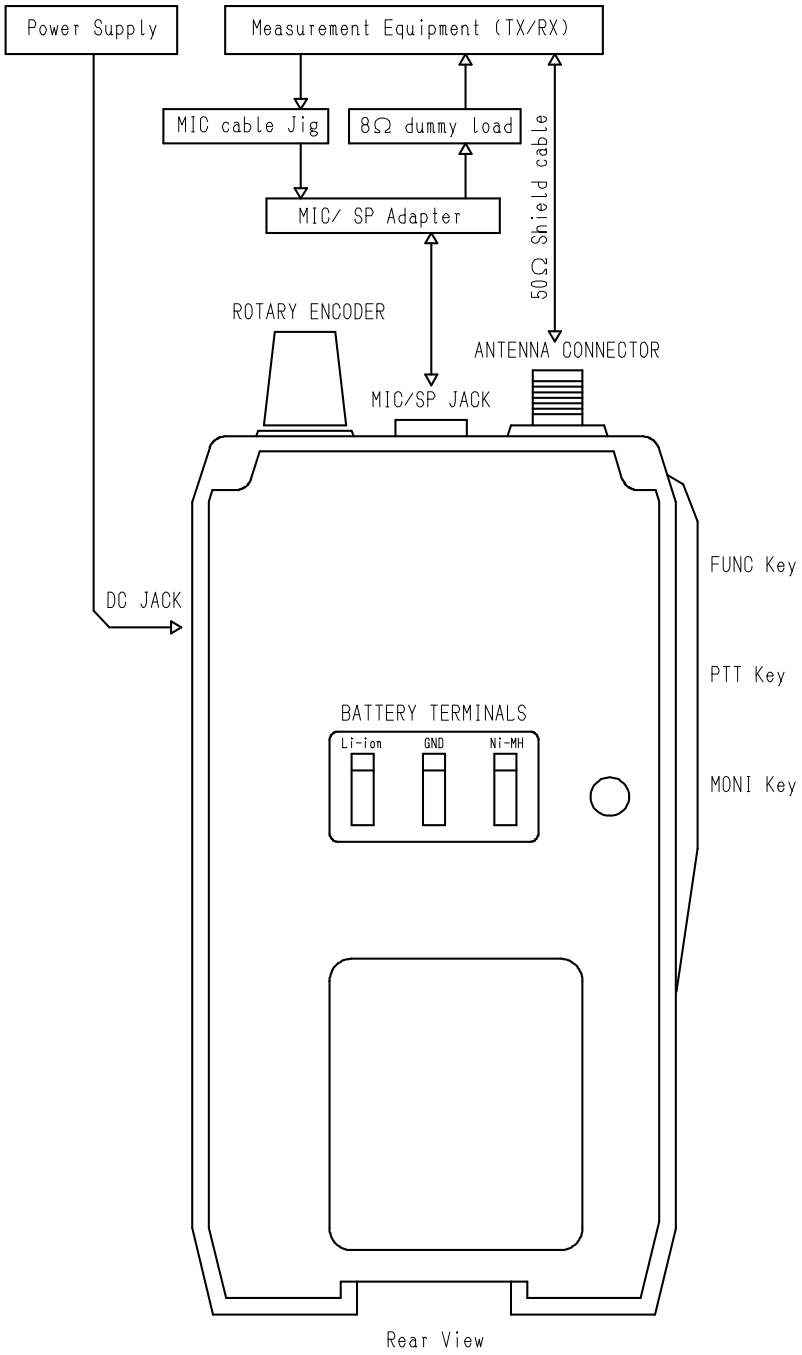
MAIN - Side B

ALINCO, INC.

In order to adjust the units, mode of them must be changed into “Adjustment mode”.

(1) Change the mode of the unit into “Memory mode”.
Operation: Press the V/M key. (”M” appears on the display)

(2) Change the mode of the unit into “Adjustment mode”.
Operation: Command input after Key Lock. (Command: 4 key > 9 key > 0 key > 2 key > 1 key > 7 key)



Required Test Equipment

The following items are required to adjust radio parameters

1.Regulated power supply
- Supply voltage: 5-14 DC
- Current: 3A or more

2.Digital multimeter
- Voltage range: FS = Approx. 20V
- Current: 10A or more
- Input resistance: High impedance

3.Oscilloscope
- Measurable frequency: Audio frequency

4.Audio dummy load
- Impedance: 8Ω
- Dissipation: 1W or more
- Jack: 3.5mmΦ

5.SSG
- Output frequency: 100MHz or more
- Impedance: 50Ω , unbalanced
- Modulation: FM

6.Power meter
- Measurable frequency: Up to 100MHz
- Impedance: 50Ω , unbalanced
- Measuring range: 0.1W-10W

7.Audio volmeter
- Measurable frequency: Up to 100kHz
- Sensitivity: 1mV to 10V

8.Audio generator
- Output frequency: 67Hz to 10kHz
- Output impedance: 600Ω , unbalanced

9.Distortion meter/SINAD meter
- Measurable frequency: 1kHz
- Input level: Up to 40dB
- Distortion: 1%-100%

10.Frequency counter
- Measurable frequency: Up to 100MHz
- Measurable stability: Approx. ±0.1ppm

11.Linear detector
- Measurable frequency: Up to 100MHz
- Characteristics: Flat
- CN: 60dB or more

12. DC Ammeter
- Current: 3A or more

Note:

(1). SSG initial setting
- Modulation Frequency:1kHz
- Modulation Level:3.5kHz

(2). Necessary optional accessory: EDS-10 (Microphone/Speaker Cable)

(3). Reference sensitivity: 12dB SINAD

(4). Specified audio output level: 500mW at 8Ω

(5). Standard audio output level: 50mW at 8Ω

(6). Use an RF cable (3D2W:1M) for test equipment.

(7). Attach a fuse to the RF test equipment.

(8). All SSG outputs are indicated by EMF

(9). Supply voltage for the transceiver:13.8VDC

· 13.8V DC shall be supplied to the DC Jack of the unit.
· Antenna connector shall be connected to a measurement equipment with a 50 ohms shield cable.
· The test frequency can be varied within +/- 0.2MHz when receiving interference or interfering with other productions.

1. Frequency adjusting
Set the memory channel number to [1].
Transmit a signal with the unit and adjust the frequency to the specs by rotating the rotary encoder.
Specs: +/- 50Hz
Condition; · frequency: 435.000MHz

2. UHF High Power adjusting
Set the memory channel number to [2].
Transmit a signal with the unit and adjust the Tx power to the specs by rotating the rotary encoder besides check that the electric current being supplied to DC Jack is below the specs.
Specs (Power): 5.0W

Condition; · frequency: 435.000MHz
Note: This adjustment should be quickly performed after transmission is started. If it was not achieved within 5 seconds, the test unit should be readjusted after cooling down.

3. UHF Middle Power adjusting
Set the memory channel number to [3].
Transmit a signal with the unit and adjust the Tx power to the specs by rotating the rotary encoder.
Specs: 2.0W
Condition; · frequency: 435.000MHz

4. UHF Low Power adjusting
Set the memory channel number to [4].
Transmit a signal with the unit and adjust the Tx power to the specs by rotating the rotary encoder.
Specs: 0.5W
Condition; · frequency: 435.000MHz

5. VHF High Power adjusting
Set the memory channel number to [5].
Transmit a signal with the unit and adjust the Tx power to the specs by rotating the rotary encoder besides check that the electric current being supplied to DC Jack is below the specs.
Specs (Power): 5.0W

Condition; · frequency: 145.000MHz
Note: This adjustment should be quickly performed after transmission is started. If it was not achieved within 5 seconds, the test unit should be readjusted after cooling down.

6. VHF Middle Power adjusting
Set the memory channel number to [6].
Transmit a signal with the unit and adjust the Tx power to the specs by rotating the rotary encoder.
Specs: 2.0W
Condition; · frequency: 145.000MHz

7. VHF Low Power adjusting
Set the memory channel number to [7].
Transmit a signal with the unit and adjust the Tx power to the specs by rotating the rotary encoder.
Specs: 0.5W
Condition; · frequency: 145.000MHz

8. UHF Wide Mic Deviation adjusting
Set the memory channel number to [8].
Transmit a signal with the unit and adjust the deviation to the specs by rotating the rotary encoder.
Specs: 4.5 +/- 0.1KHz
Condition; · frequency: 435.000MHz
· AF filter setting: off – 20KHz

9. UHF Narrow Mic Deviation adjusting
Set the memory channel number to [9].
Transmit a signal with the unit and adjust the deviation to the specs by rotating the rotary encoder.
Specs: 2.2 +/- 0.1KHz
Condition; · frequency: 435.000MHz
· AF filter setting: off – 20KHz

· 13.8V DC shall be supplied to the DC Jack of the unit.
· Antenna connector shall be connected to a measurement equipment with a 50 ohms shield cable.
· The test frequency can be varied within +/- 0.2MHz when receiving interference or interfering with other productions.

10. VHF Wide Mic Deviation adjusting
Set the memory channel number to [11].
Transmit a signal with the unit and adjust the deviation to the specs by rotating the rotary encoder.
Specs: 4.5 +/- 0.1KHz
Condition; · frequency: 145.000MHz
· AF filter setting: off – 20KHz

11. VHF Narrow Mic Deviation adjusting
Set the memory channel number to [12].
Transmit a signal with the unit and adjust the deviation to the specs by rotating the rotary encoder.
Specs: 2.2 +/- 0.1KHz
Condition; · frequency: 145.000MHz
· AF filter setting: off – 20KHz

12. UHF Wide CTCSS tone [88.5Hz] Deviation
Set the memory channel number to [14].
Transmit a signal with the unit and adjust the deviation to the specs by rotating the rotary encoder and then check if the waveform of the tone signal demodulated is sign waveform.
Specs: 0.80 +/- 0.05KHz
Condition; · frequency: 435.000MHz
· AF filter setting: off – 3KHz

13. UHF Narrow CTCSS tone [88.5Hz] Deviation
Set the memory channel number to [15].
Transmit a signal with the unit and adjust the deviation to the specs by rotating the rotary encoder and then check if the waveform of the tone signal demodulated is sign waveform.
Specs: 0.50 +/- 0.05KHz
Condition; · frequency: 435.000MHz
· AF filter setting: off – 3KHz

14. UHF Wide DCS [255] Deviation checking
Set the memory channel number to [16].
Transmit a signal with the unit and adjust the deviation to the specs by rotating the rotary encoder.
Specs: 0.80 +/- 0.05KHz
Condition; · frequency: 435.000MHz
· AF filter setting: off – 3KHz

15. UHF Narrow DCS [255] Deviation checking
Set the memory channel number to [17].
Transmit a signal with the unit and adjust the deviation to the specs by rotating the rotary encoder.
Specs: 0.50 +/- 0.05KHz
Condition; · frequency: 435.000MHz
· AF filter setting: off – 3KHz

16. VHF Wide CTCSS tone [88.5Hz] Deviation
Set the memory channel number to [18].
Transmit a signal with the unit and adjust the deviation to the specs by rotating the rotary encoder and then check if the waveform of the tone signal demodulated is sign waveform.
Specs: 0.80 +/- 0.05KHz
Condition; · frequency: 145.000MHz
· AF filter setting: off – 3KHz

17. VHF Narrow CTCSS tone [88.5Hz] Deviation
Set the memory channel number to [19].
Transmit a signal with the unit and adjust the deviation to the specs by rotating the rotary encoder and then check if the waveform of the tone signal demodulated is sign waveform.
Specs: 0.50 +/- 0.05KHz
Condition; · frequency: 145.000MHz
· AF filter setting: off – 3KHz

· 13.8V DC shall be supplied to the DC Jack of the unit.
· Antenna connector shall be connected to a measurement equipment with a 50 ohms shield cable.
· The test frequency can be varied within +/- 0.2MHz when receiving interference or interfering with other productions.

18. VHF Wide DCS [255] Deviation checking
Set the memory channel number to [20].
Transmit a signal with the unit and adjust the deviation to the specs by rotating the rotary encoder.
Specs: 0.80 +/- 0.05KHz
Condition; · frequency: 145.000MHz
· AF filter setting: off – 3KHz

19. VHF Narrow DCS [255] Deviation checking
Set the memory channel number to [21].
Transmit a signal with the unit and adjust the deviation to the specs by rotating the rotary encoder.
Specs: 0.50 +/- 0.05KHz
Condition; · frequency: 145.000MHz
· AF filter setting: off – 3KHz

20. VHF Wide DTMF tone Deviation
Set the memory channel number to [22].
Transmit a signal with the unit and adjust the deviation to the specs by rotating the rotary encoder.
Specs: 3.0 +/- 0.1KHz
Condition; · frequency: 145.000MHz
· AF filter setting: off – 20KHz

21. VHF Narrow DTMF tone Deviation
Set the memory channel number to [23].
Transmit a signal with the unit and adjust the deviation to the specs by rotating the rotary encoder.
Specs: 1.5 +/- 0.1KHz
Condition; · frequency: 145.000MHz
· AF filter setting: off – 20KHz

22. UHF Wide DTMF tone Deviation
Set the memory channel number to [24].
Transmit a signal with the unit and adjust the deviation to the specs by rotating the rotary encoder.
Specs: 3.0 +/- 0.1KHz
Condition; · frequency: 435.000MHz
· AF filter setting: off – 20KHz

23. UHF Narrow DTMF tone Deviation
Set the memory channel number to [25].
Transmit a signal with the unit and adjust the deviation to the specs by rotating the rotary encoder.
Specs: 1.5 +/- 0.1KHz
Condition; · frequency: 435.000MHz
· AF filter setting: off – 20KHz

24. UHF Sensitivity [SINAD] center range adjusting
Set the memory channel number to [28].
Specs: [SINAD] 12dB or better
Condition; · frequency: 435.000MHz
· RF signal level: -8.0dBμ
· SQL setting: 0
· modulation frequency with RF signal: 1KHz
· modulation level (deviation) with RF signal: 3.5KHz

25. VHF Sensitivity [SINAD] center range adjusting
Set the memory channel number to [31].
Specs: [SINAD] 12dB or better
Condition; · frequency: 145.000MHz
· RF signal level: -9.0dBμ
· SQL setting: 0
· modulation frequency with RF signal: 1KHz
· modulation level (deviation) with RF signal: 3.5KHz

Receive a RF signal with the unit and adjust the audio output power of the SP Jack to approximately 50mW by the volume adjustment function.

Press "FUNC" key and then tune the sensitivity by rotating the rotary encoder so that it will be the best and pass the specs.

Note: In order to finish this adjustment and proceed to next step, press "FUNC" key.

· 13.8V DC shall be supplied to the DC Jack of the unit.
· Antenna connector shall be connected to a measurement equipment with a 50 ohms shield cable.
· The test frequency can be varied within +/- 0.2MHz when receiving interference or interfering with other productions.

Condition of Squelch, S-meter and Attenuator adjusting.
· modulation frequency with RF signal: 1KHz
· modulation level (deviation) with RF signal: 3.5KHz
· SQL setting: 0

Operation of Squelch and S-meter adjusting.
Receive a RF signal with the unit and press "FUNC" key.

26. UHF Squelch [Min.] adjusting
Set the memory channel number to [33].
Condition; · frequency: 435.000 +/- 0.2MHz
· RF signal level: **-11dBμ**

27. UHF Squelch [Max.] adjusting
Set the memory channel number to [34].
Condition; · frequency: 435.000 +/- 0.2MHz
· RF signal level: **0dBμ**

28. UHF S-meter [1] level adjusting
Set the memory channel number to [35].
Condition; · frequency: 435.000 +/- 0.2MHz
· RF signal level: **0dBμ**

29. UHF S-meter [Full] level adjusting
Set the memory channel number to [36].
Condition; · frequency: 435.000 +/- 0.2MHz
· RF signal level: **20dBμ**

30. UHF Attenuator-1 adjusting
Set the memory channel number to [37].
Receive a RF signal with the unit.
Press "FUNC" key and then reduce the number of the S-meter between "4" and "5" by rotating the rotary encoder.
Condition; · frequency: 435.000 +/- 0.2MHz
· RF signal level: **24dBμ**

Note: In order to finish this adjustment and proceed to next step, press "FUNC" key.
This must be performed after S-meter adjustments.

OK

OK

Flashing

NG

31. UHF Attenuator-2 adjusting
Set the memory channel number to [38].
Receive a RF signal with the unit.
Press "FUNC" key and then reduce the number of the S-meter between "1" and "2" by rotating the rotary encoder.
Condition; · frequency: 435.000 +/- 0.2MHz
· RF signal level: **24dBμ**

Note: In order to finish this adjustment and proceed to next step, press "FUNC" key.
This must be performed after S-meter adjustments.

OK

OK

Flashing

NG

· 13.8V DC shall be supplied to the DC Jack of the unit.
· Antenna connector shall be connected to a measurement equipment with a 50 ohms shield cable.
· The test frequency can be varied within +/- 0.2MHz when receiving interference or interfering with other productions.

Condition of Squelch, S-meter and Attenuator adjusting.
· modulation frequency with RF signal: 1KHz
· modulation level (deviation) with RF signal: 3.5KHz
· SQL setting: 0

Operation of Squelch and S-meter adjusting.
Receive a RF signal with the unit and press "FUNC" key.

32. VHF Squelch [Min.] adjusting
Set the memory channel number to [39].
Condition; · frequency: 145.000 +/- 0.2MHz
· RF signal level: **-12dBμ**

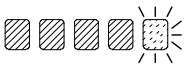
33. VHF Squelch [Max.] adjusting
Set the memory channel number to [40].
Condition; · frequency: 145.000 +/- 0.2MHz
· RF signal level: **0dBμ**

34. VHF S-meter [1] level adjusting
Set the memory channel number to [41].
Condition; · frequency: 145.000 +/- 0.2MHz
· RF signal level: **0dBμ**

35. VHF S-meter [Full] level adjusting
Set the memory channel number to [42].
Condition; · frequency: 145.000 +/- 0.2MHz
· RF signal level: **20dBμ**

36. VHF Attenuator-1 adjusting
Set the memory channel number to [43].
Receive a RF signal with the unit.
Press "FUNC" key and then reduce the number of the S-meter between "4" and "5" by rotating the rotary encoder.
Condition; · frequency: 145.000 +/- 0.2MHz
· RF signal level: **24dBμ**

Note: In order to finish this adjustment and proceed to next step, press "FUNC" key.
This must be performed after S-meter adjustments.

OK	
OK	 Flashing
NG	

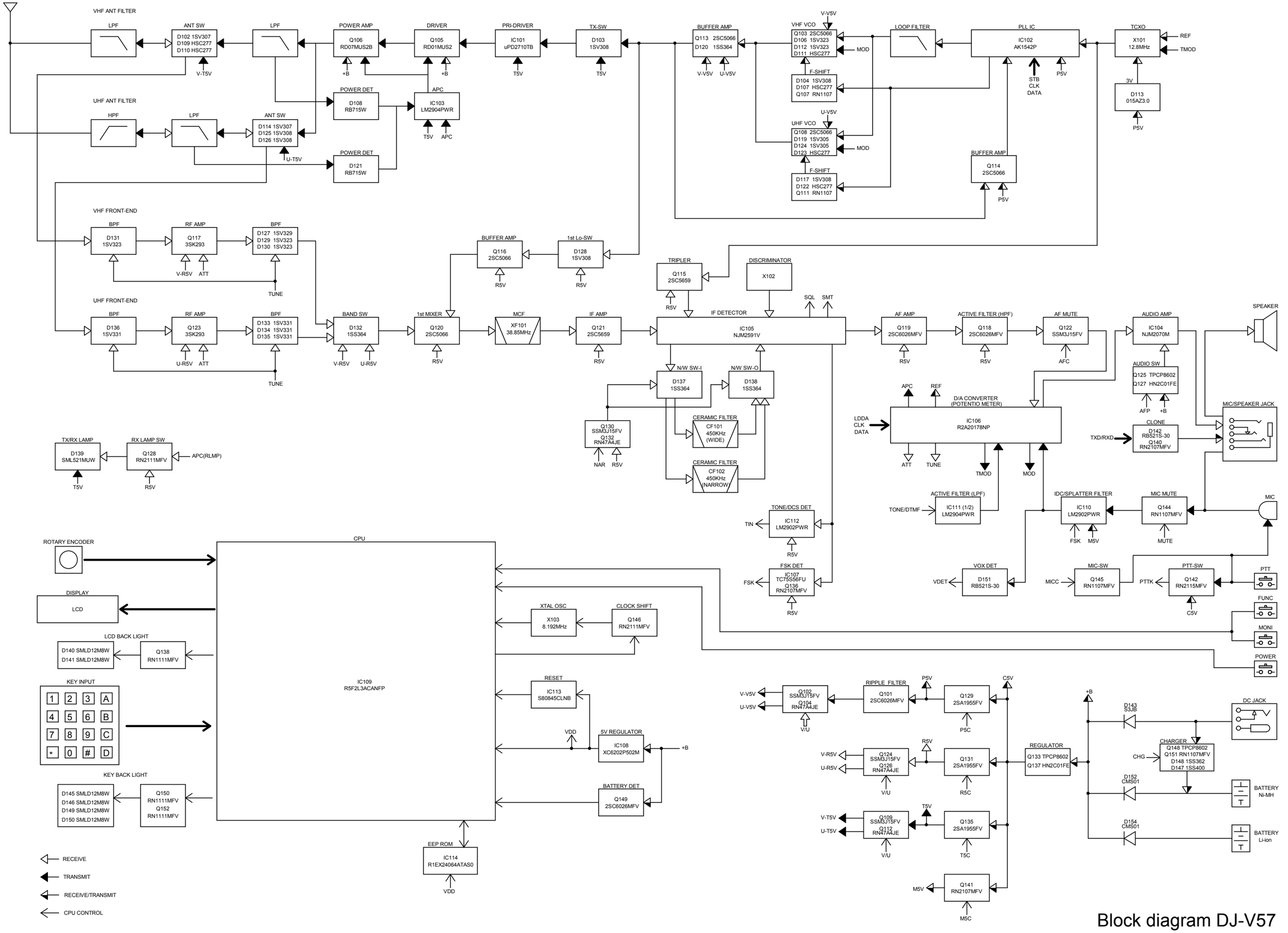
37. VHF Attenuator-2 adjusting
Set the memory channel number to [44].
Receive a RF signal with the unit.
Press "FUNC" key and then reduce the number of the S-meter between "1" and "2" by rotating the rotary encoder.
Condition; · frequency: 145.000 +/- 0.2MHz
· RF signal level: **24dBμ**

Note: In order to finish this adjustment and proceed to next step, press "FUNC" key.
This must be performed after S-meter adjustments.

OK	
OK	Flashing
NG	

Storage to Flash Memory
Select the memory channel number to [45].
[FLASH] is displayed.
" Press FUNC key "
(Adjustment data is stored into Flash Memory of CPU.)

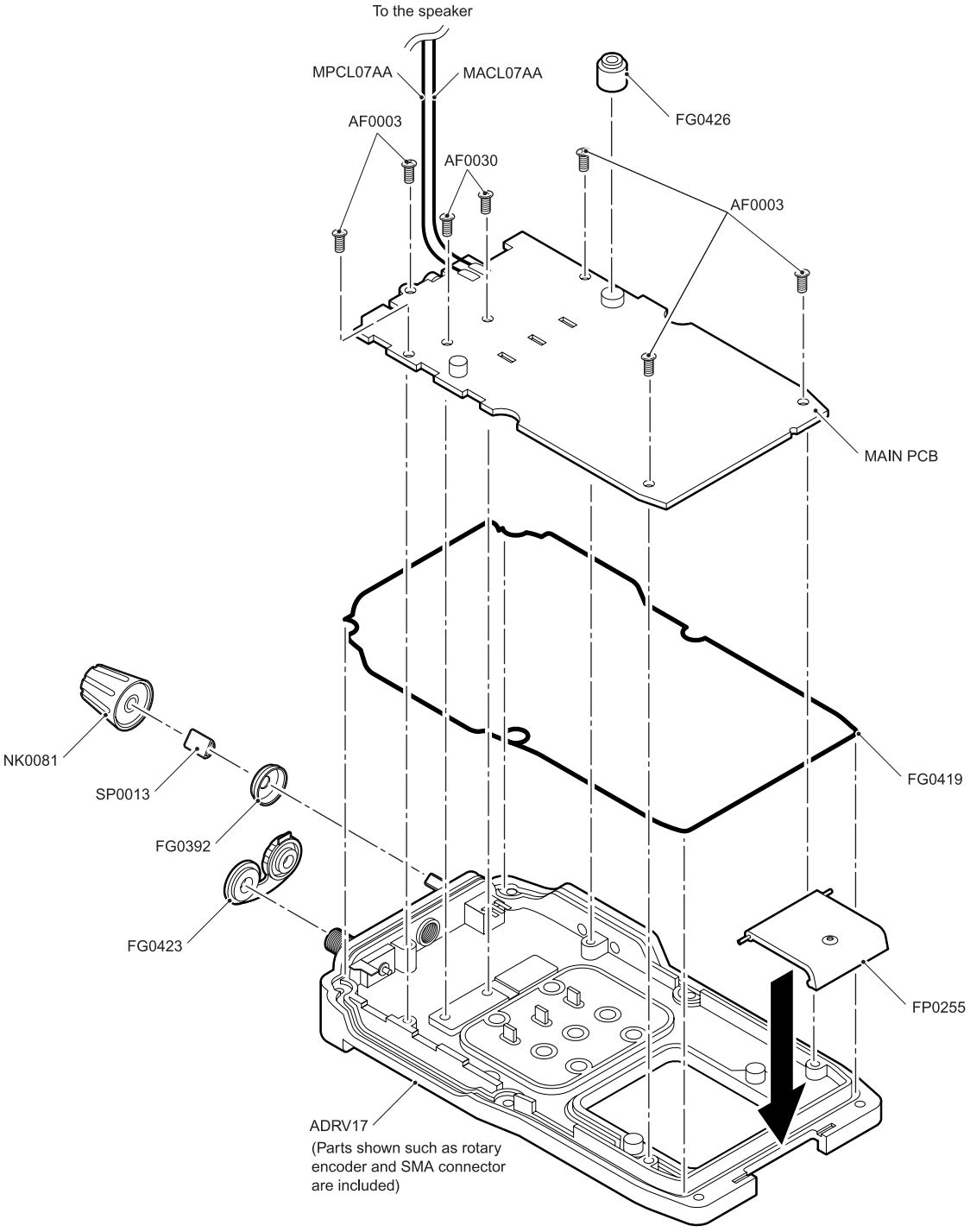
Schematic diagram DJ-V57



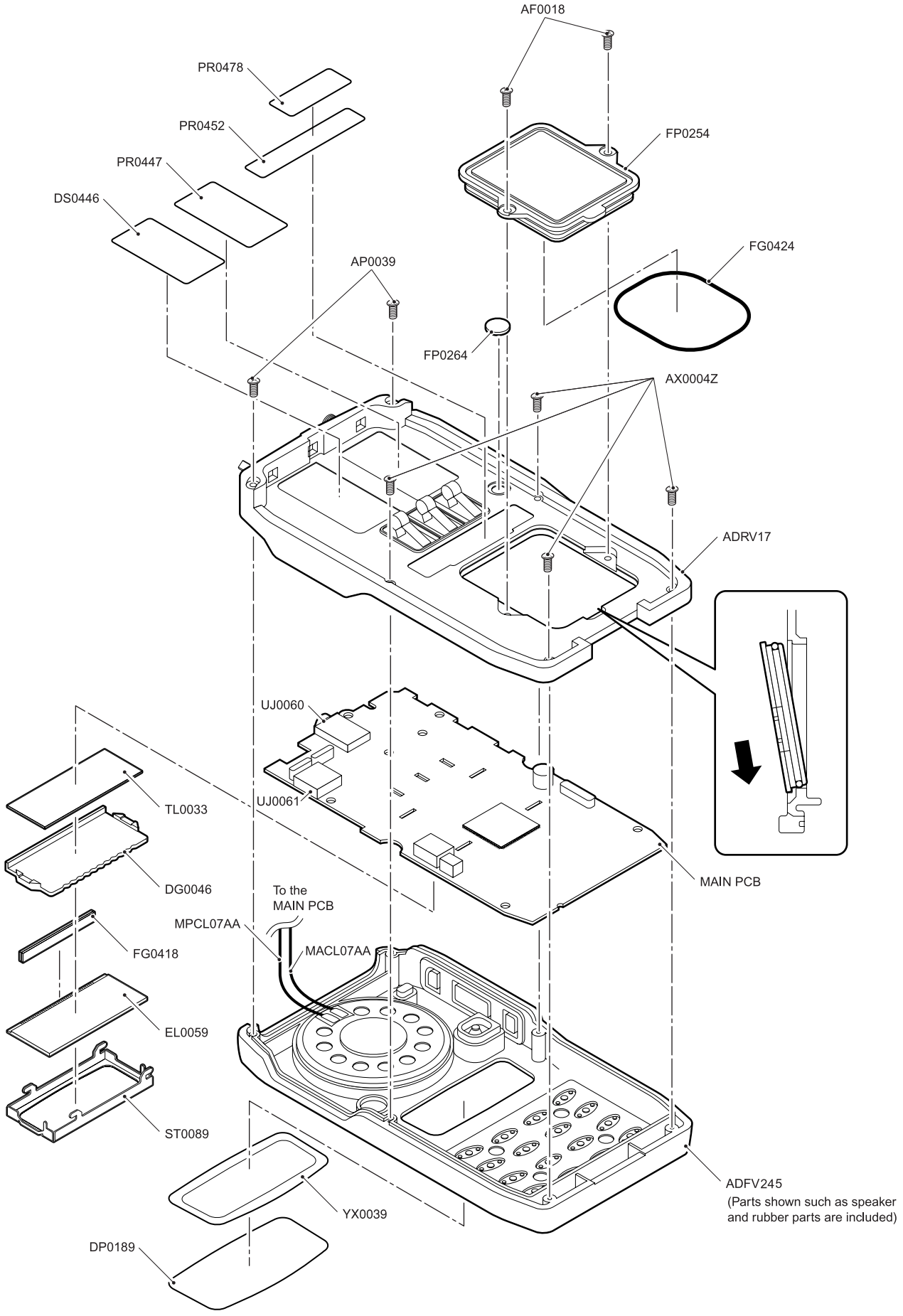
Block diagram DJ-V57

EXPLODED VIEW

1) Front View



2) Rear View


AF0018
PR0478
PR0452
PR0447
DS0446
FP0254
FG0424
AP0039
FP0264
AX0004Z
ADRV17
UJ0060
UJ0061
TL0033
DG0046
To the
MAIN PCB
MPCL07AA
MACL07AA
MAIN PCB
FG0418
EL0059
ST0089
ADFV245
(Parts shown such as speaker
and rubber parts are included)
YX0039
DP0189